

Washington State Freight Mobility Plan

Truck Freight Highway Needs

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Washington State
Department of Transportation

MAP-21 Directs States to Analyze Freight Bottlenecks in Freight Plans

The Moving Ahead for Progress in the 21st Century Act (MAP-21) guidance for State Freight Plans says:

- “... A State Freight Plan must include the performance measures that will guide the freight-related transportation investment decisions of the State.
- The Department recommends that this discussion also include an analysis of the conditions and performance of the State’s freight transportation system.
- This analysis would include the identification of bottlenecks in the freight transportation system that:
 - cause delays and unreliability in freight movements, as well as other specific locations that
 - are in a poor state of good repair,
 - create safety hazards,
 - or create other performance problems.”

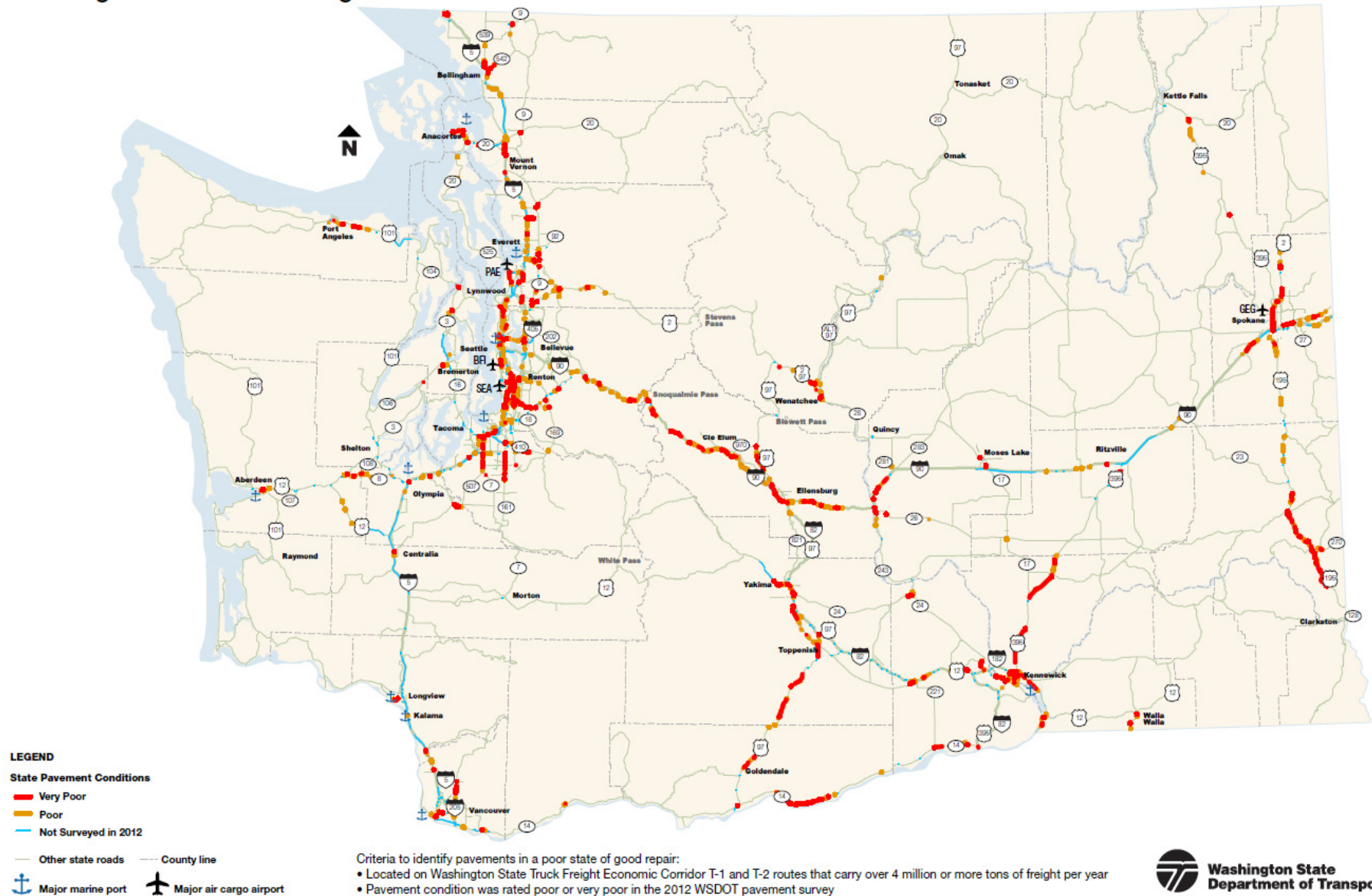
Washington State Freight Plan: WSDOT Analysis of Truck Freight Bottlenecks

To provide guidance for both state and federal investment in freight systems, WSDOT analyzed nine categories of truck bottlenecks on highways in the Washington State Truck Freight Economic Corridors:

1. Safety needs, as part of the Target Zero program
2. Pavement locations in a poor state of repair
3. Bridges in a poor state of repair
4. Legal load restrictions
5. Clearance restrictions for over-height goods movement
6. Resiliency bottlenecks
7. Truck slow-speed locations on freeways in urban areas
8. Capacity needs on major truck highways
9. Truck slow-speed locations on signalized highways in urban areas

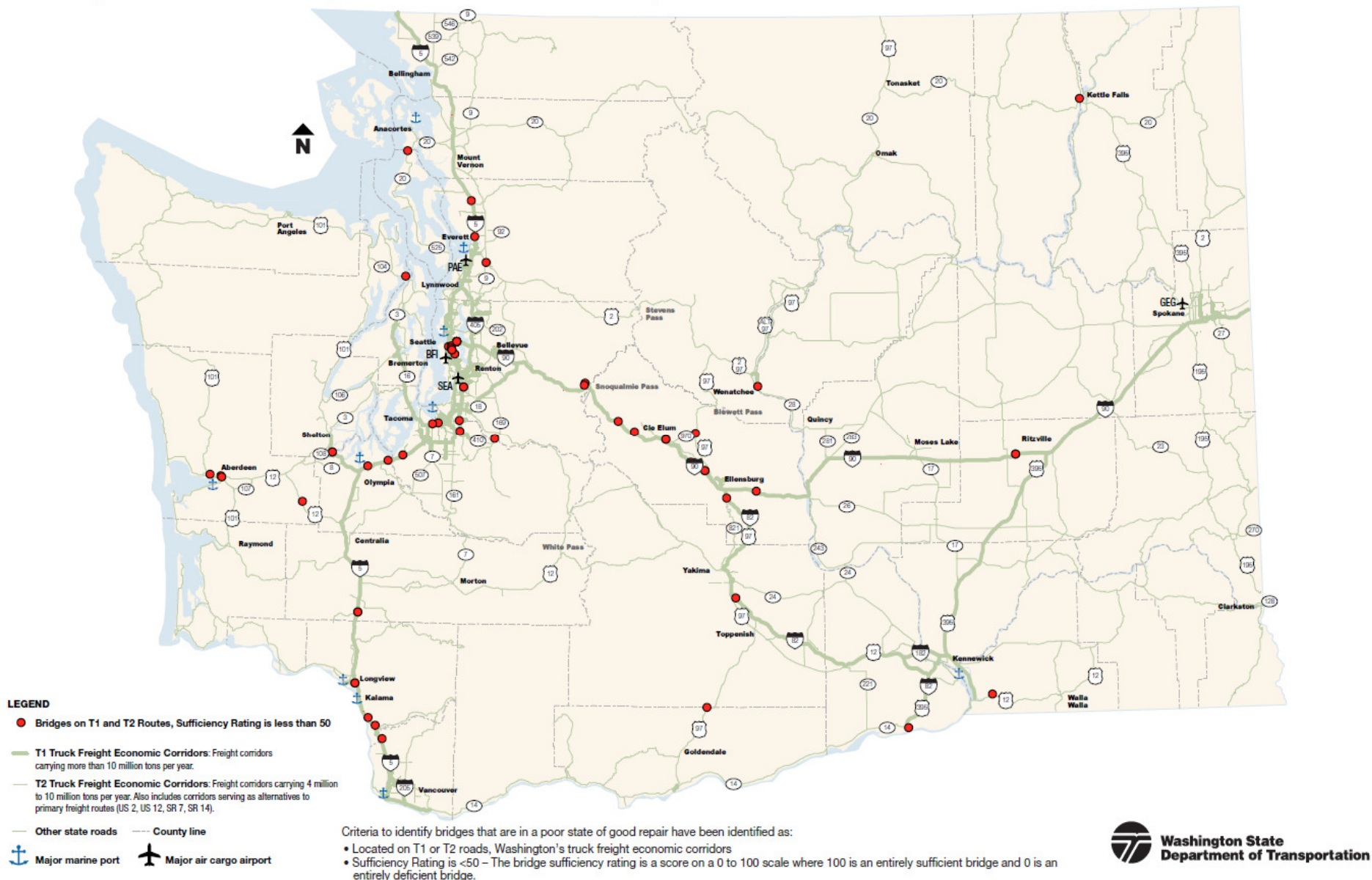
Washington State Truck Freight Economic Corridors: Pavement Conditions

August 2013

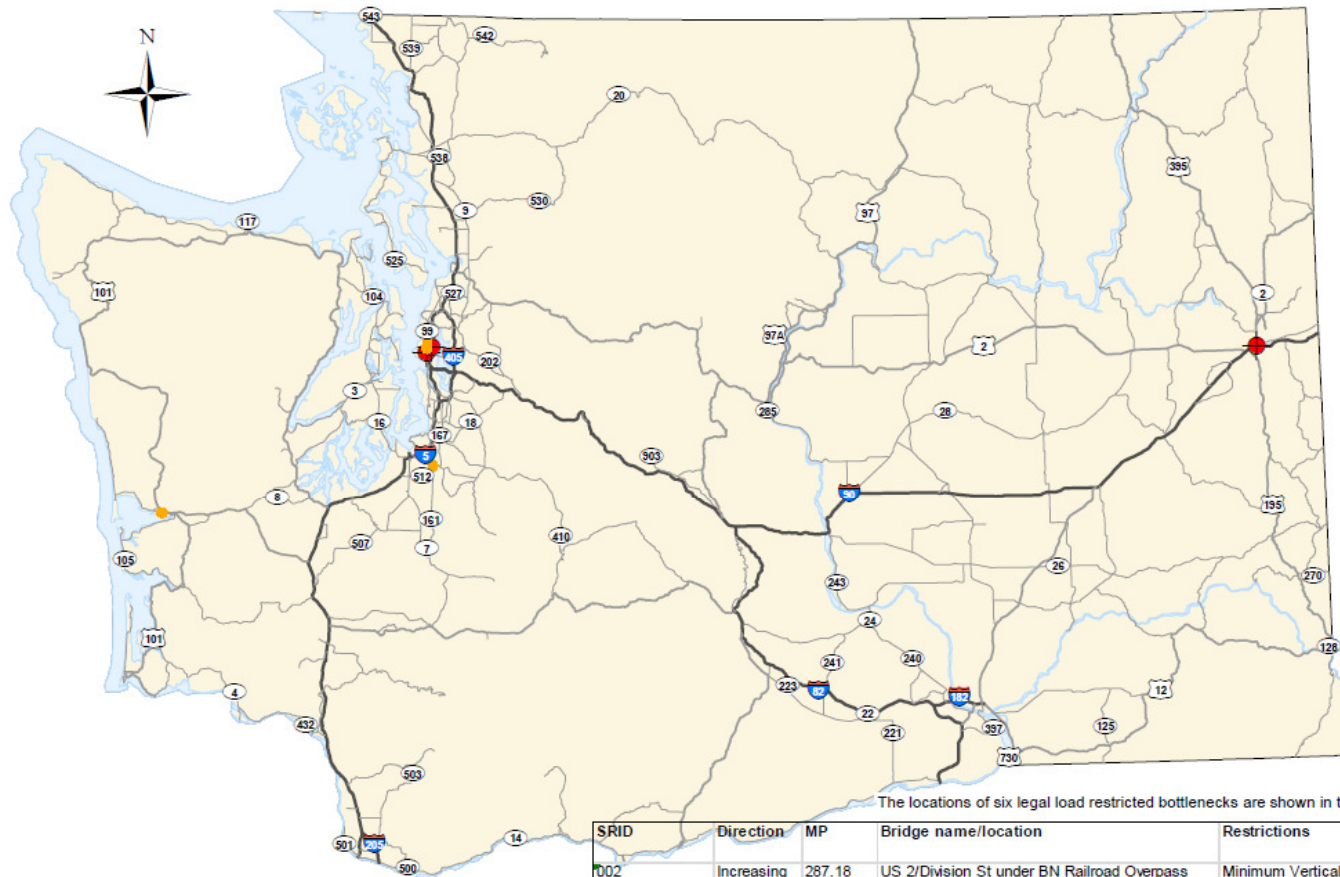


Washington State Truck Freight Economic Corridors: Bridge Need Locations

August 2013



Washington State Truck Freight Economic Corridors: Legal Load Restrictions

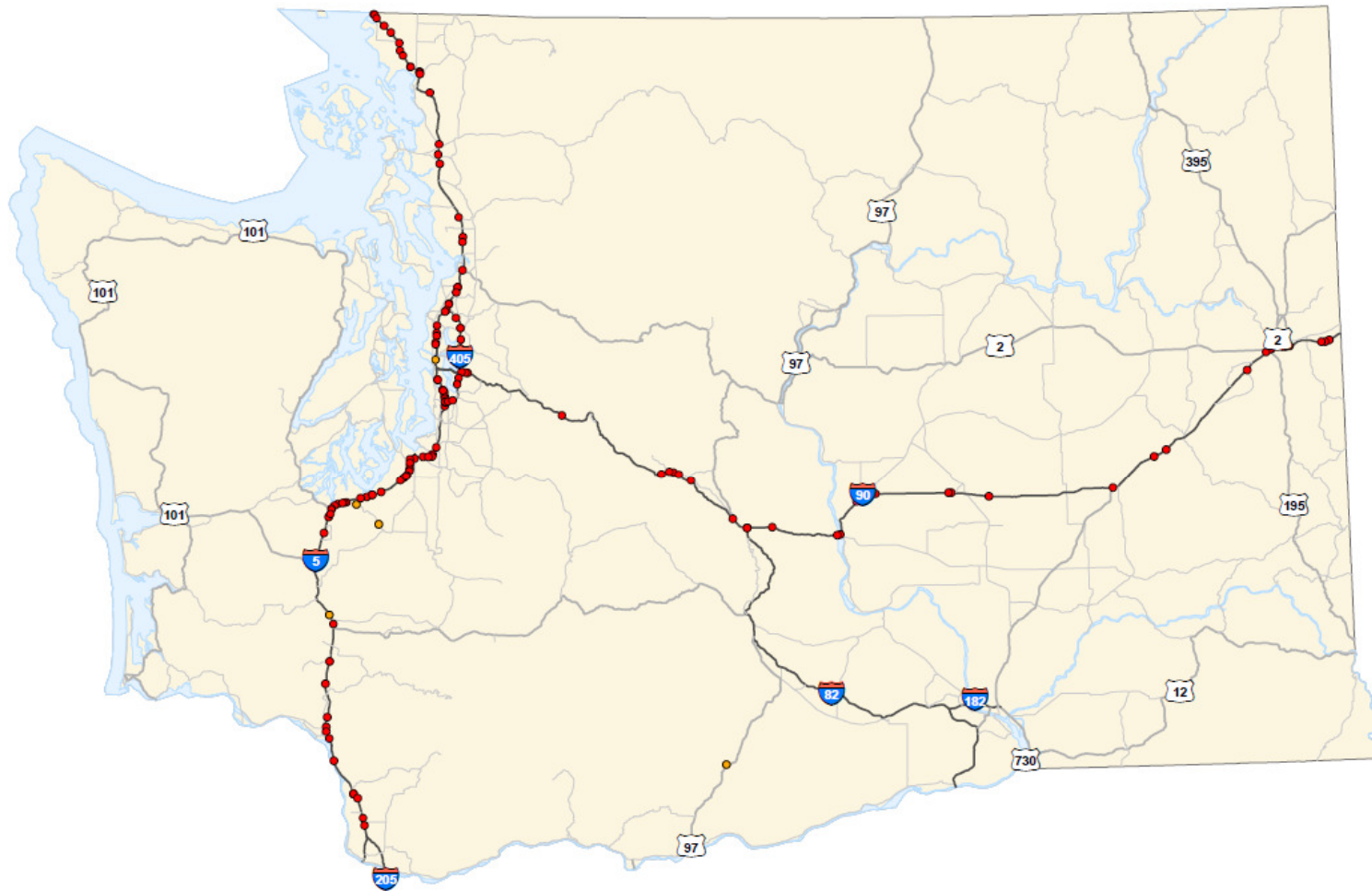


Legal Load Restricted Bottlenecks

- Height clearance less than 14 feet
- Weight restricted equal to or below 105,500 lbs

SRID	Direction	MP	Bridge name/location	Restrictions	FGTS 2011
002	Increasing	287.18	US 2/Division St under BN Railroad Overpass	Minimum Vertical Clearance 13'5"	T-2
099	Both	35.1	SR 99 under N 41st St /Aurora Pedestrian Bridge	Minimum Vertical Clearance 13'5"	T-2
101COABERDN	Increasing	87.99	US 101 Hoquiam River - Simpson Bridge	Posted weight restriction: Straight Truck - 25 tons, Truck / Semitrailer - 36 tons, Truck / Trailer - 40 tons, Total Weight Limit 105,500 lbs	T-2
522	Increasing	0.08	8th N Ramp Bridge	Minimum Vertical Clearance 13'11"	T-2
167	Both	6.4B	Puyallup River, 0.2 S JCT SR 161	Total Weight Limit 105,500 lbs, Trucks restricted to right lane	T-2
99	Both	29.84	Alaskan Way Viaduct, 3.8 mi. North of Jct SR 509	Total Weight Limit 105,500 lbs, Trucks restricted to right lane	T-1

Over-height Truck Bottlenecks with Clearances Less Than 17 feet in Washington State



- Bottlenecks on I-5, I-90, and I-405 with height clearances less than 17 feet
- Truck bottlenecks identified in WSDOT Permit Office Oversize Overweight Survey

Please note that the 17-foot clearance criteria was recommended by trucking companies carrying over-dimensional loads in the WSDOT Permit Office survey completed June, 2013

Washington State Truck Freight Economic Corridors: Resiliency Bottlenecks



— Resiliency Bottlenecks

Resiliency bottleneck criteria:

1. Located on T-1 or T-2 highways, and an average of at least 5,000 trucks per day
2. Caused by severe weather (flooding, avalanche control)
3. Corridor has had at least one full closure lasting longer than 24 hours in a rolling 20-year period

The locations of two resiliency bottlenecks are shown in the table below:

Number	Route ID	Begin milepost	End milepost
1	Interstate 5	68	88
2	Interstate 90	34	106

Washington State Truck Freight Economic Corridors: Truck Slow Speed Locations on Freeways, and Capacity Needs

Truck Slow Speed Bottleneck Criteria:

1. Located on freeways carrying four million or more tons of freight per year, and
2. More than 50% of sampled trucks are traveling below 60% of posted speed

Major Truck Corridor Capacity Needs:

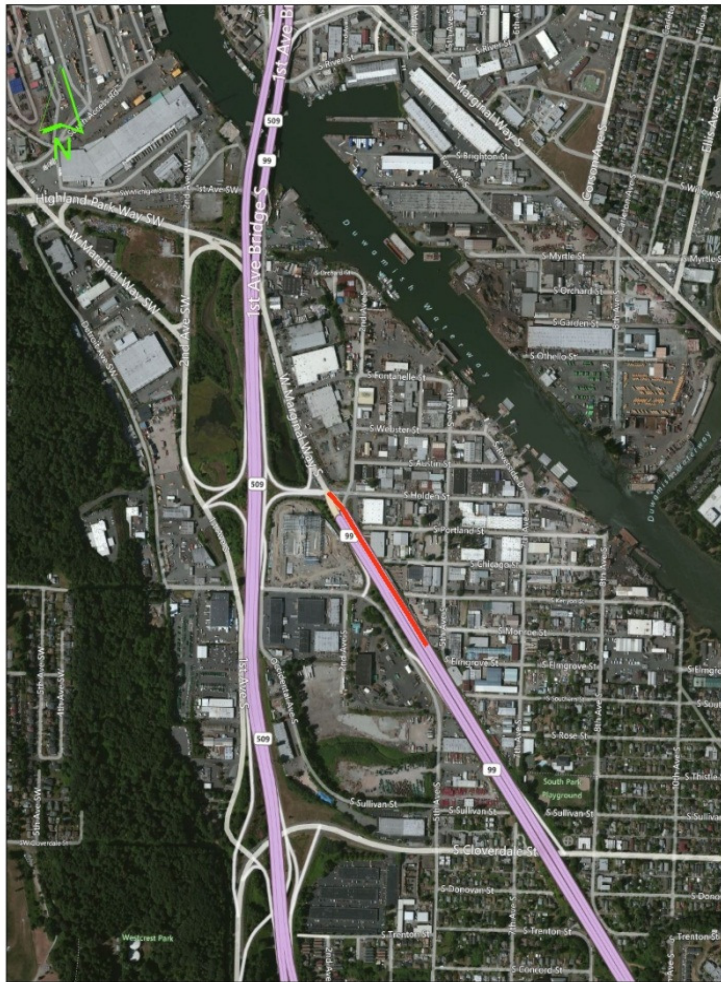
1. Highway 167
2. Highway 509
3. Spokane North-South Freeway



----- Missing Links on Freeways
----- Truck Slow Speed Bottlenecks on Freeways

Washington State Truck Freight Economic Corridors:

Example of Truck Slow Speed Bottleneck on Traffic-Controlled Highway



- ▶ Location: SR 99 northbound, south of 1st Avenue S. Bridge, Seattle, WA
- ▶ Length: 0.26 mile
- ▶ Daily truck volume: 3,900; T-1 corridor
- ▶ Truck percentage of total traffic: 13%
- ▶ Average truck travel speed: 22 mph
- ▶ Posted speed: 40 mph
- ▶ Percentage of sample trucks traveling below 60% of posted speed limit: 63%

We're very interested in your feedback.

Questions?

For more information, please contact:

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Washington State Freight Mobility Plan website:

<http://www.wsdot.wa.gov/Freight/freightmobilityplan>



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